TITLE: METHOD FOR PRESSURIZED MUD CAP AND REVERSE CIRCULATION DRILLING FROM A FLOATING DRILLING RIG USING A SEALED MARINE RISER Don M. Hannegan INVENTOR: SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0 1/1,4 FIG.1 (PRIOR ART) MB RI S Hin DLOB ВL KL CL

TITLE: METHOD FOR PRESSURIZED MUD CAP AND REVERSE CIRCULATION DRILLING FROM A FLOATING DRILLING RIG USING A SEALED MARINE RISER Don M. Hannegan INVENTOR: SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0 2/14 FIG.1A (PRIOR ART) RÉ В-В D. Dί SH BJ

TITLE: METHOD FOR PRESSURIZED MUD CAP AND REVERSE CIRCULATION DRILLING FROM A FLOATIND ORILLING RIG USING A SEALED MARINE RISER INVENTOR: Don M. Hannegan SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0 3/14 CM MB 7, SS ना। MP 5 32 FIG. 2

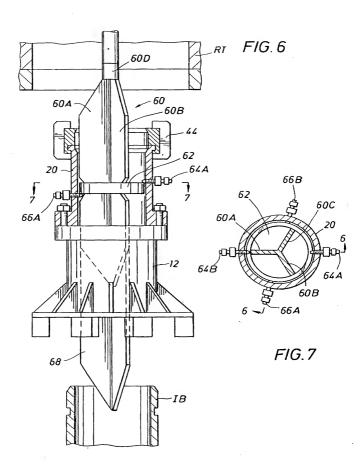
TITLE: METHOD FOR PRESSURIZED MUD CAP AND REVERSE CIRCULATION DRILLING FROM A FLOATING DRILLING RIG USING A SEALED MARINE RISER INVENTOR: Don M. Hannegan SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0 + 4/14 FIG. 3 10 A 34 36 44 16 20B 16A 18 18A 18A'-28 26 38 32 20C -12A 14 . IBF HOB 1 71

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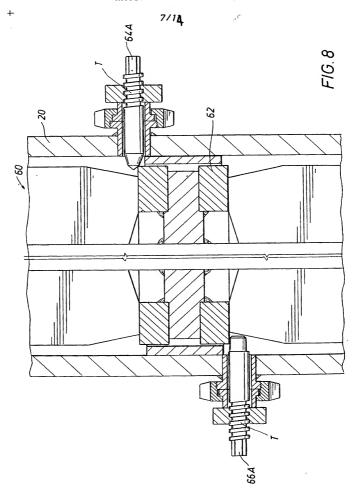
INVENTOR: Don M. Hannegan
SERIAL NO.: Unknown
ATTY DOCKET #: H055010.0048US0

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SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0



INVENTOR: SERIAL NO.: ATTY DOCKET #: Don M. Hannegan Unknown H055010.0048US0 8/14 -MAX PIN LOAD - FULLY ECENTRIC RUNNING TOOL WITHOUT CENTERING BLOCKS 193/4 191/2 22.25 INCH ID BOWL WITH 1.156" CENTERING BLOCKS RUNNING TOOL OUTER DIAMETER (in) -MAX HOOK LOAD - ECENTRIC RUNNING TOOL -----MOST LIKELY INNER BARREL WEIGHT -WORSE CASE INNER BARREL WEIGHT 1.5 INCH MINIMUM PIN TAPER DIAMETER -MAX HOOK LOAD - TAPERED PINS 40,000 psi YIELD STRENGTH IN MATERIAL 1001 1831 \$ 39 22 2 2 3 70 35

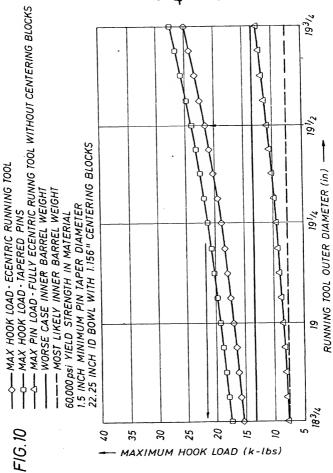
MAXIMUM HOOK LOAD (k-lbs)

TITLE: METHOD FOR PRE MUD CAP AND REVERSE CIRCULATION

METHOD FOR PRESSURIZED

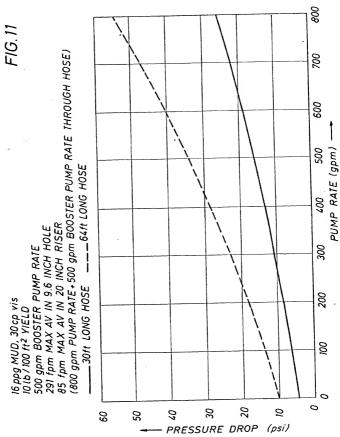
TITLE: METHOD FOR PRESSURIZED MUD CAP AND REVERSE CIRCULATION DEBLLING FROM A FLOATING DEBLLING RIGUSING A SEALED MARINE RISER NIVENTOR: Don M. Hannegan SERIAL NO.: Unknown ATTY DOCKET #: H055010.0048US0

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10/14



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